



UNIVERSITY OF
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Cambridge

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Plastic, the 'P' word

Lessons from a study of UK plastics flows

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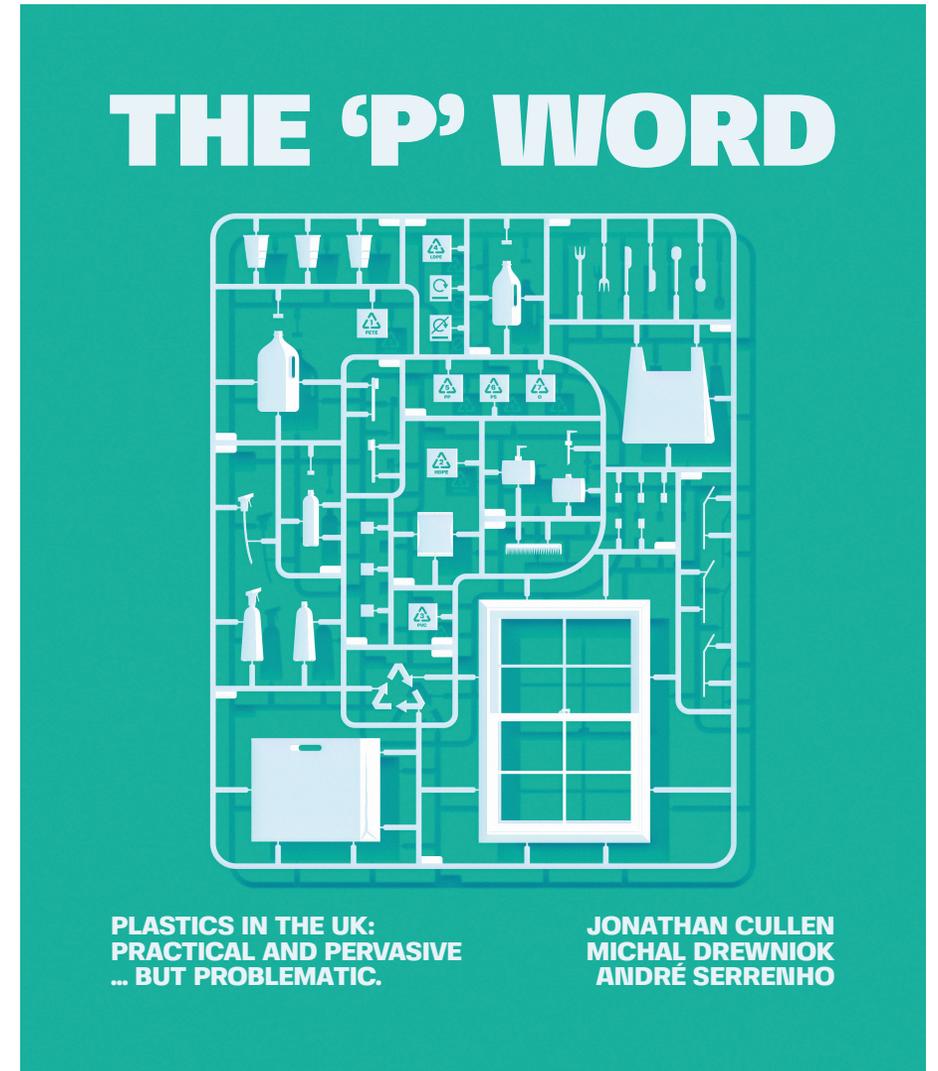
André Serrenho
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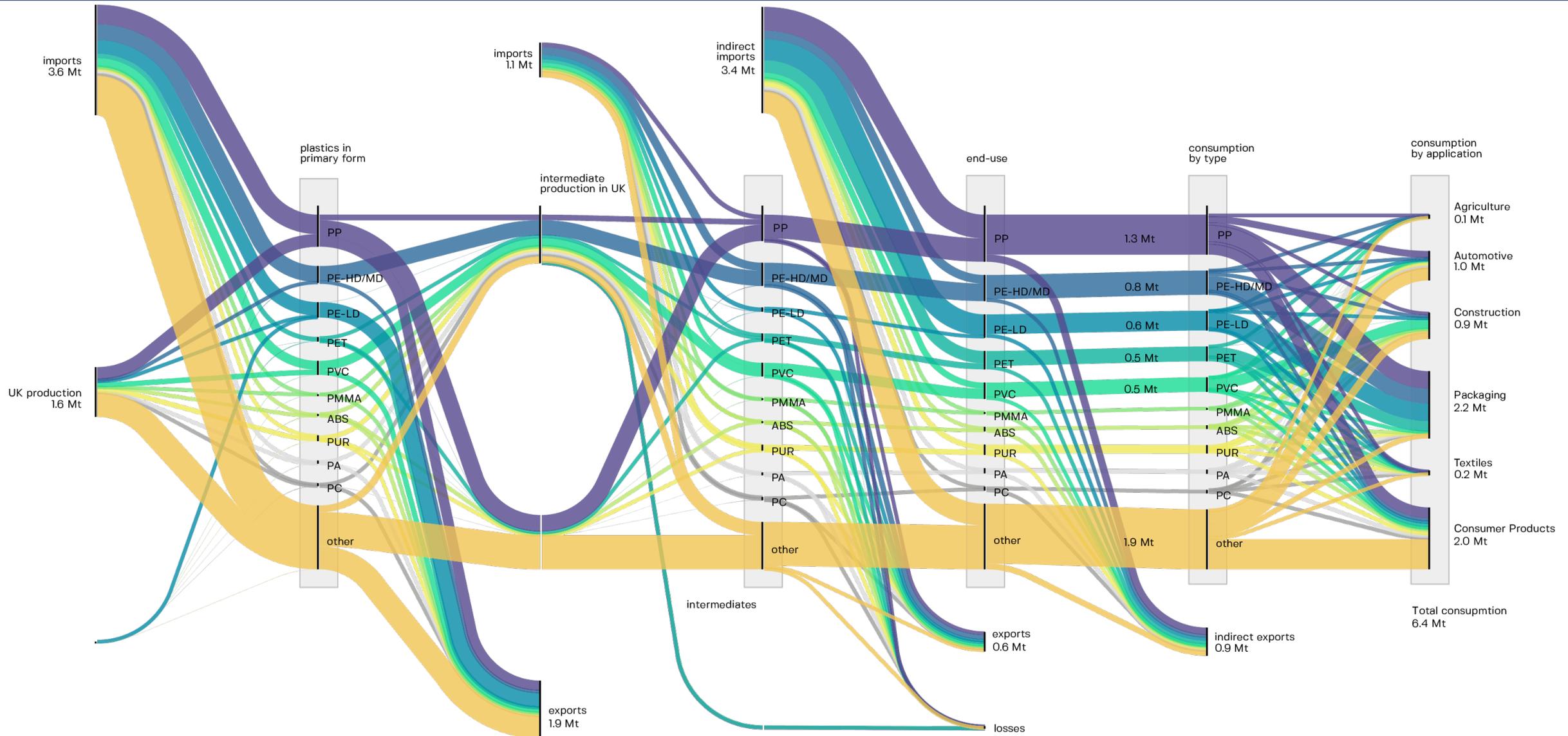
Michal Drewniok
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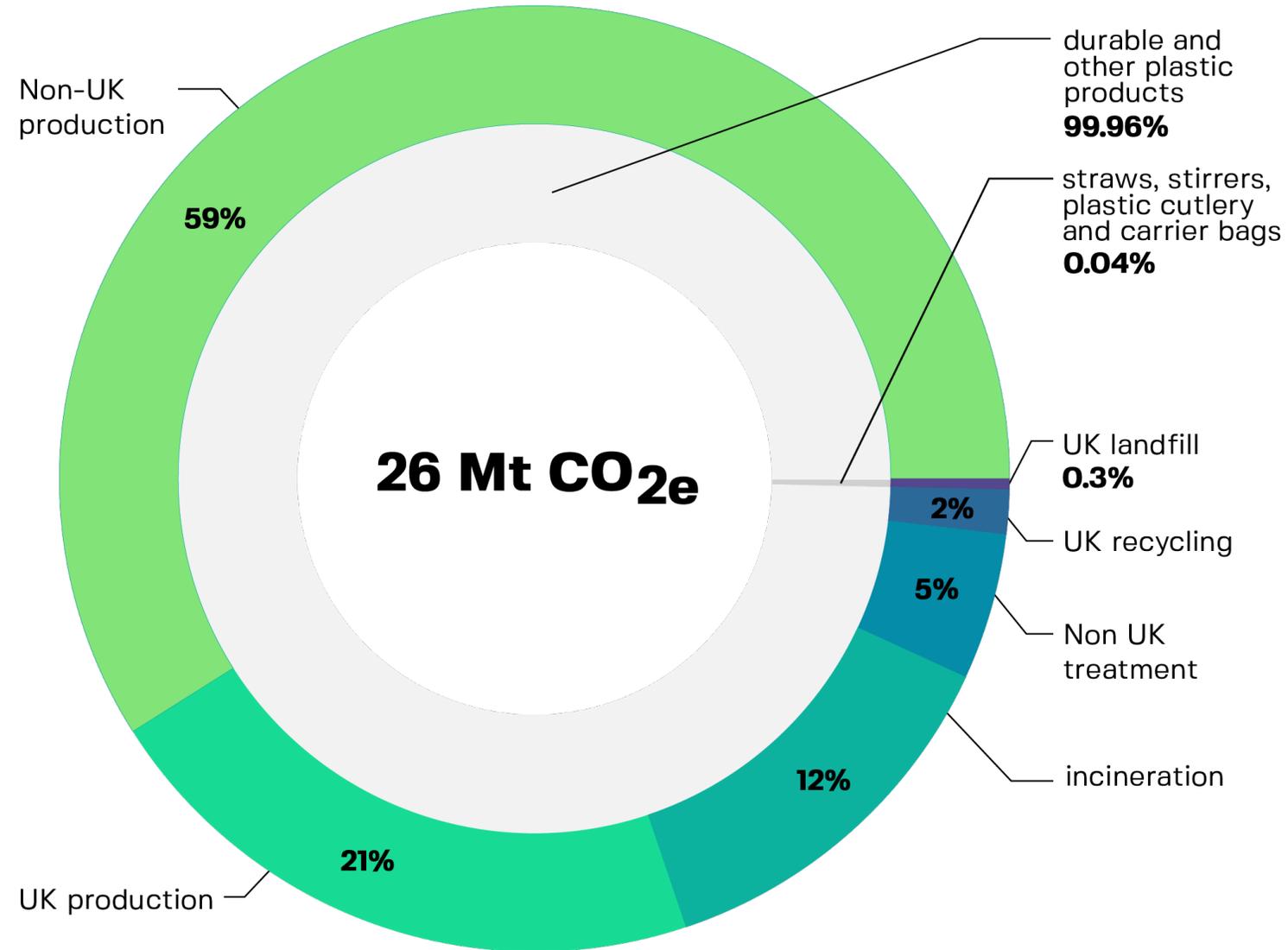
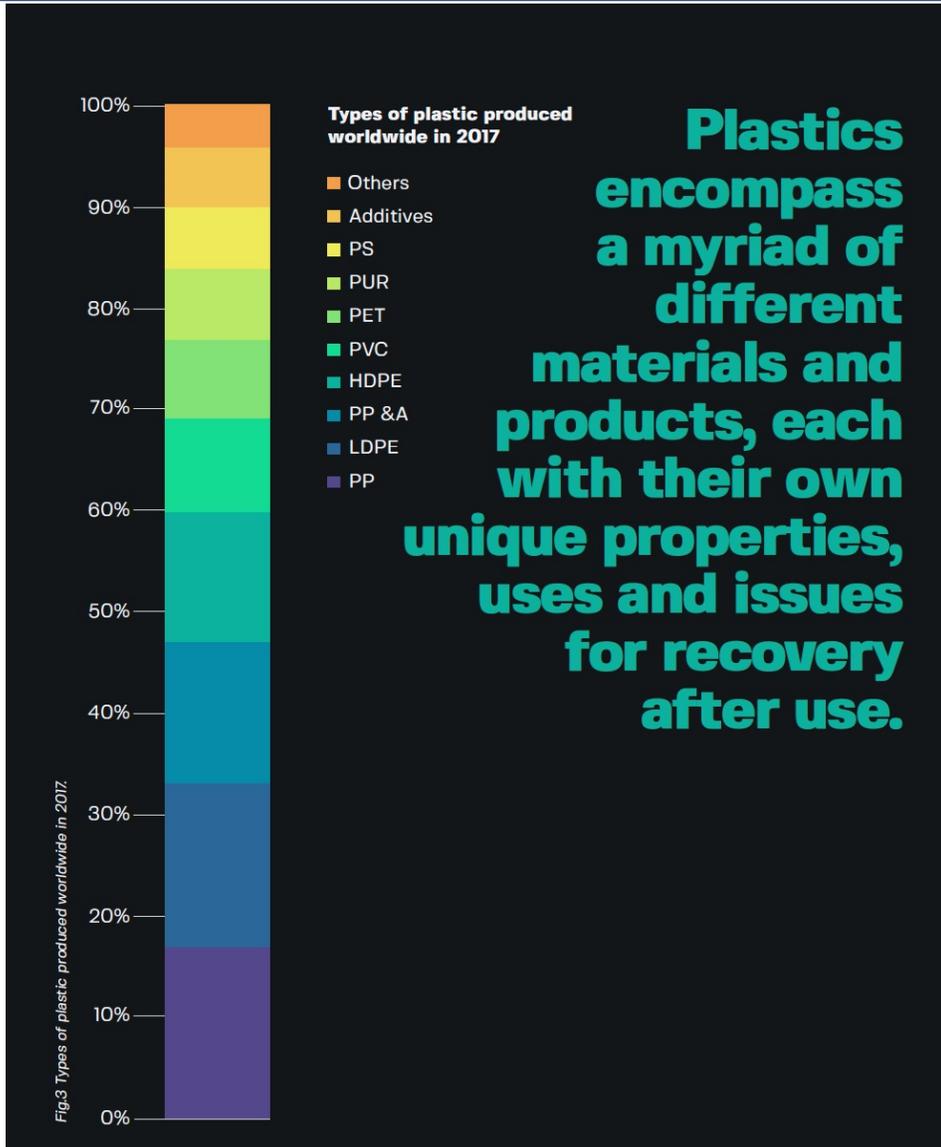
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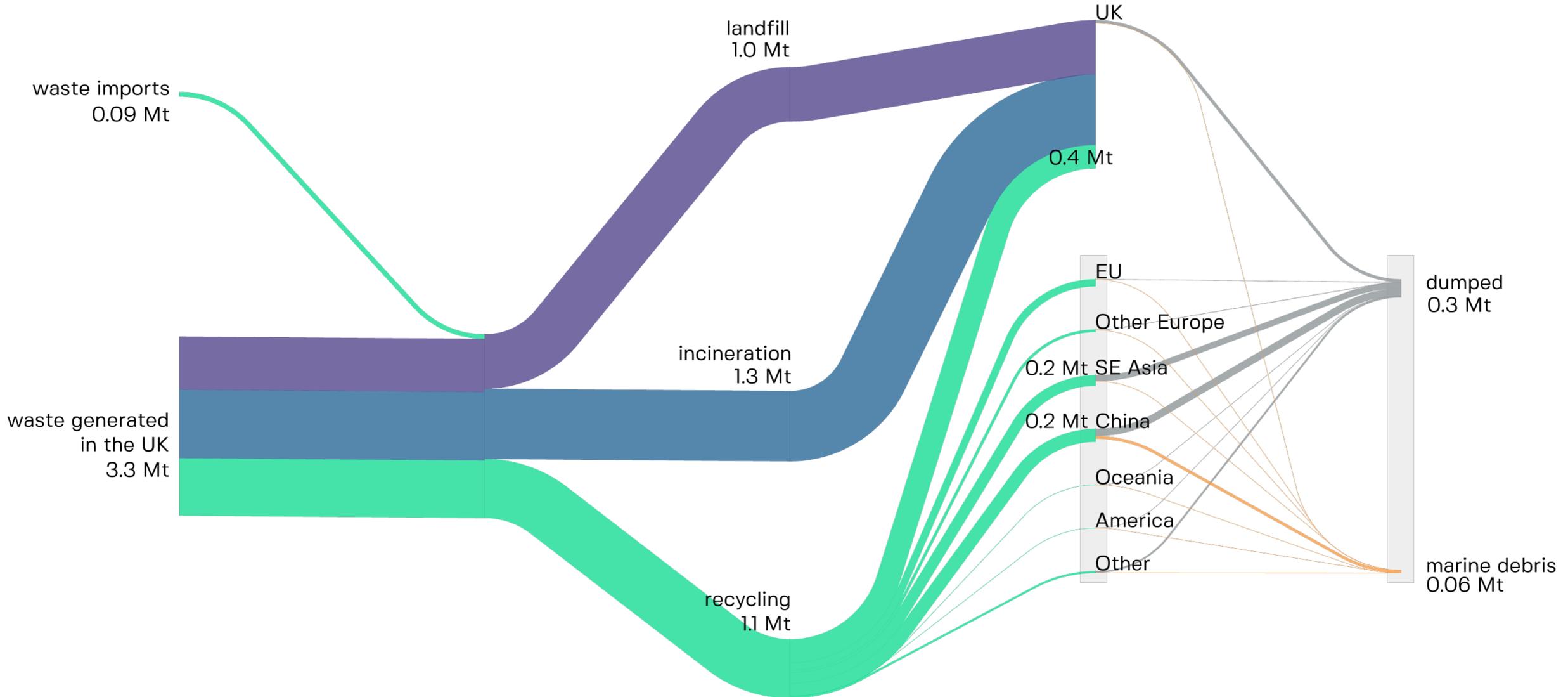
UK Plastics Flows, 2017



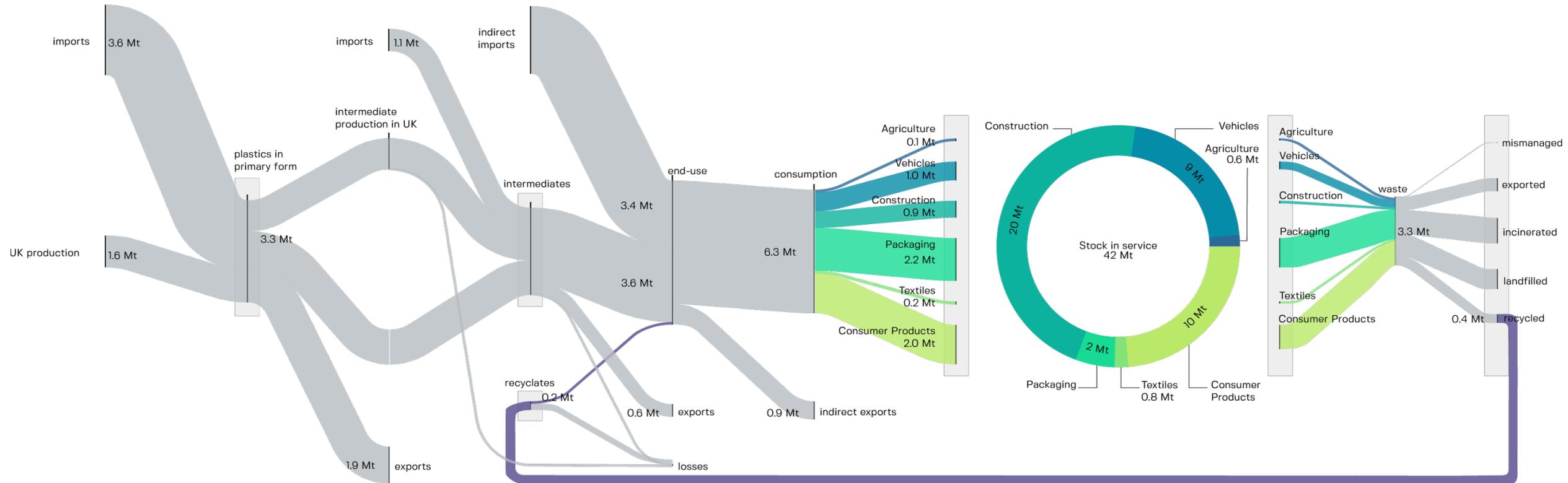
Plastics are pervasive... but problematic



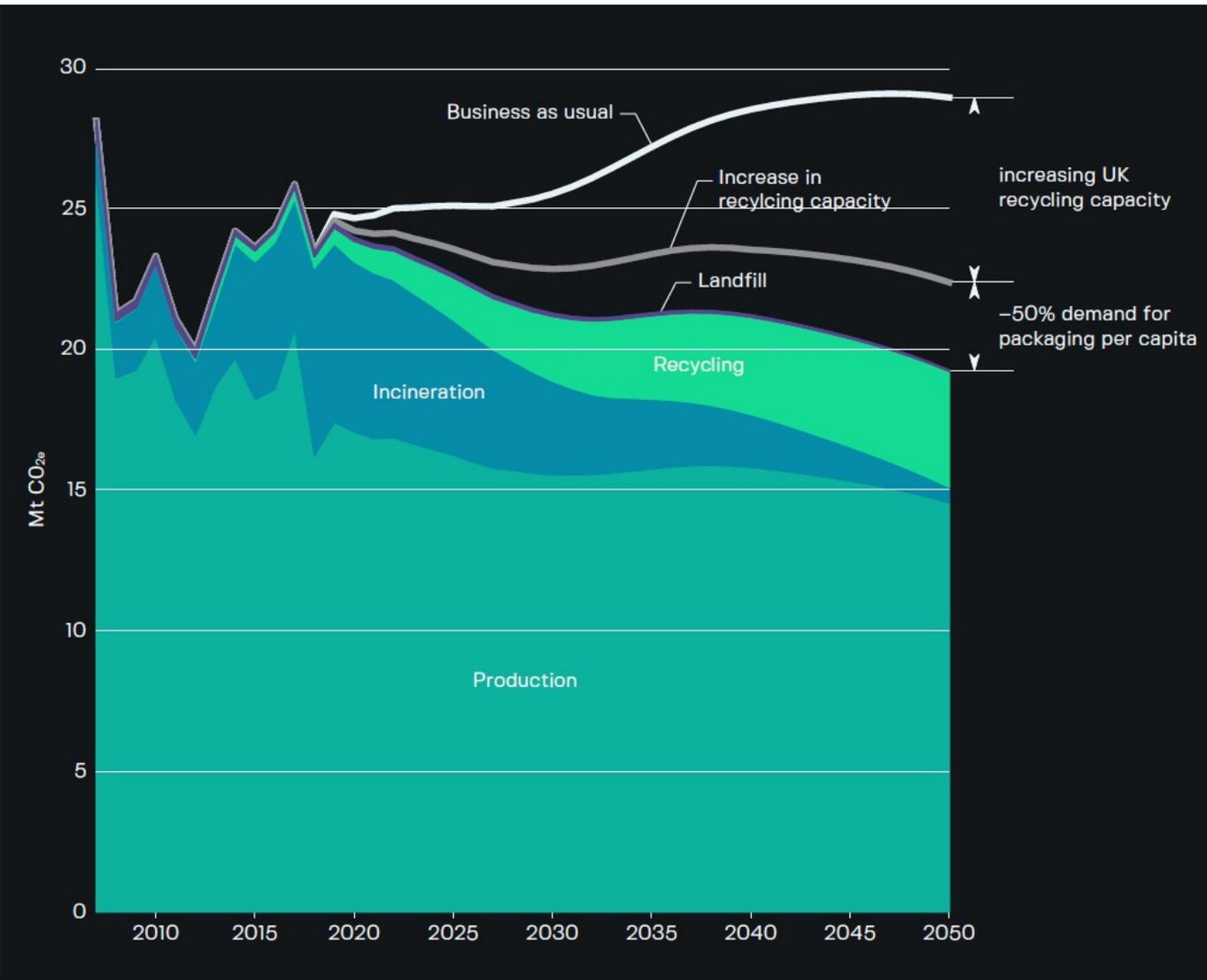
UK plastics at end of life



Projecting future flows



Pathways forward



WASTE / EMISSION HIERARCHY

PRODUCT SPECIFIC



Plastic Food Packaging



- Food waste is a much larger contributor to climate change than plastic food packaging.
 - UK food waste GHG emissions: ~25 MtCO_{2e}
 - All UK plastics consumption: ~26 MtCO_{2e}
 - All packaging is only ~40% of total consumption
- 9.5 Mt out of a total of 44.5 Mt of food consumer annually in the UK is wasted without being eaten.
- Reducing food waste to zero could not only prevent food waste emissions, but also a reduction of ~20% in plastic film waste.

Other possible pathways forward

- Chemical recycling of plastics
- Bio plastics
- Reuse and design
- Innovation in the petrochemical industry

C-THRU



CARBON CLARITY IN THE GLOBAL PETROCHEMICAL SUPPLY CHAIN

A 3-year, US\$4m, international research project which aims to deliver foresight on future interventions and innovation opportunities for petrochemicals, required to reduce GHG emissions.



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Global petrochemicals

